

On the origin of the term "stem cell".

Journal: Cell Stem Cell

Publication Year: 2007

Authors: Miguel Ramalho-Santos, Holger Willenbring

PubMed link: 18371332

Funding Grants: Transcriptional Regulation of Human Embryonic Stem Cells, Induction of pluripotency in fibroblasts by fusion with enucleated human embryonic stem cell syncytia

Public Summary:

The review tracks the origin of the term stem cell all the way back to the late 19th century where it was used to describe cells that give rise to the germline or the blood system.

Scientific Abstract:

Stem cells have fascinated both biologists and clinicians for over a century. Here, we discuss the origin of the term "stem cell," which can be traced back to the late 19th century. The term stem cell originated in the context of two major embryological questions of that time: the continuity of the germ-plasm and the origin of the hematopoietic system. Theodor Boveri and Valentin Hacker used the term stem cell to describe cells committed to give rise to the germline. In parallel, Artur Pappenheim, Alexander Maximow, Ernst Neumann, and others used it to describe a proposed progenitor of the blood system. The original meanings of the term stem cell, rather than being historical relics, continue to capture important aspects of the biology of stem cells as we see them today.

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